ABSTRACT

Spinal muscular atrophy (SMA) is a lethal autosomal recessive disease. The gene most highly associated with SMA is the survival motor neuron (SMN) gene. The present invention is a new procedure to obtain the SMN constructs easily and rapidly for the expression of full-length recombinant SMN protein. This procedure consists of: 1) cloning human SMN gene based on the reverse transcription (RT) and the polymerase chain reaction (PCR); and 2) performing the SMN constructs using the commercially available expression vectors, a/ pFastBac™ HTb and pBlueBacHis2 A transfer vectors for the purpose of obtaining recombinant SMN protein in insect cells, and b/ pET-28a (+) transfer vector for the purpose of obtaining recombinant SMN protein in bacteria.